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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,073	12/28/2001	Chris J. Goodings	20011891	3971

34018 7590 10/18/2005

GREENBERG TRAURIG, LLP
77 WEST WACKER DRIVE
SUITE 2500
CHICAGO, IL 60601-1732

EXAMINER

DYKE, KERRI M

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,073

Applicant(s)

GOODINGS, CHRIS J.

Examiner

Kerri M. Dyke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/21/03 & 6/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 12/29/2000. It is noted, however, that applicant has not filed a certified copy of the 0031812.1 application as required by 35 U.S.C. 119(b).
2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 12/29/2000. It is noted, however, that applicant has not filed a certified copy of the 0031817.0 application as required by 35 U.S.C. 119(b).

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "216" and "116" have both been used to designate transmit periods of figure 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 6 element 143. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the

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specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 6-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Haartsen (WO 00/70811), which was provided by the applicant and claims priority to an application filed in the US on 17 May 1999.
6. In regards to claims 1, 10-13, Haartsen discloses a method and apparatus for use in a wireless frequency hopping digital communications system. The disclosed method uses time

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division duplex data frames to send a block of data then resends the block of data using a different frequency. A receiver receives the block of data and the redundant block. The redundant block is used only if the quality of the communication link is determined to be below a threshold value. A summary of the system is provided on page 8 lines 5-28. The redundant data blocks can be sent in the next successive data frame or offset by any number m as described in page 5 lines 14-23.

7. In regards to claims 6 and 8, Haartsen discloses only transmitting and receiving a duplicate block (second/fourth) if the communication quality is below a threshold in page 8 lines 12-24.

8. In regards to claims 7 and 9, Haartsen discloses using maximum bit error rate to define the quality threshold on page 12 line 28 – page 13 line 1.

9. In regards to claim 14, Haartsen discloses the method of claim 13 wherein the predetermined criterion for quality is based upon a BER (page 12 line 28 – page 13 line 1) and determining that the BER has exceeded a maximum acceptable level. Determining that the BER has surpassed a maximum level is not explicitly disclosed, but it is inherent if the BER is to be used to determine when a redundant link should be used. There must be some predetermined level of quality that when violated triggers the use of the redundant link.

10. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Pandula (WO 95/34960), which was supplied by the applicant.

11. In regards to claim 1, Pandula discloses a system which redundantly transmits and receives data within a wireless frequency hopping time division duplex system on page 3 line 1 – page 4 line 21.

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12. In regards to claim 16, Pandula discloses redundantly transmitting a data frame which includes error detection information on page 3 line 1 – page 4 line 21. The specific use of error detection bits is mentioned on page 14 lines 27-28. Page 14 lines 4-25 describe a method for using the error detection bits for determining if the data was received with errors. If the data has errors it is not stored but discarded. If the data does not have errors it is stored and marked for further transmission or output. This is also described in a different embodiment on page 17 line 15 – page 19 line 34.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pandula (WO 95/34960).

15. In regards to claim 2, Pandula discloses the data frame of claim 1 further comprising sending and receiving error detection information in page 14 lines 4-30. It is not disclosed if the detection information is transmitted and received during a preamble. Lines 27-28 indicate that the error detection information can take the form of error detection bits. It is well known to one of ordinary skill in the art that error detection bits can be included in a header. A header serves to provide introductory information, which is the definition of a preamble. Thus, a header can be considered to be a preamble and it is well known and obvious to one of ordinary skill in the art to include error detection information within a header.

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16. Claims 3-5, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen (WO 00/70811) in view of Fischer (US 5,371,734).

17. In regards to claims 3-5, 15 and 17 Haartsen discloses the method of claim1 including sending a first block of data during a primary send period and sending a second block of data which is a copy of the first block during a secondary send period. Haarsten et al. does not disclose measuring the battery level and transmitting/receiving the redundant block only if the level is above a threshold value.

Fischer discloses powering down the transmitter and receiver to save battery life in column 5 lines 28-32. In column 28 lines 38-43 it is disclosed that the decision can be based upon the amount of battery power remaining.

Fischer is analogous art because it is directed to solving the problem of conserving battery power in both the transmitter and the receiver.

It would have been obvious to one of ordinary skill in the art to use the power saving technique taught by Fischer within the redundant transmission system of Haartsen, because remaining active at all times or for sending and receiving unnecessary/redundant data is a great drain on battery life, as disclosed by Fischer in column 4 line 56 – column 5 line 3.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Peponides et al. (US 5,406,613) is for a method of inhibiting reception of redundant messages after it is determined that the message has been received with an acceptable level of error.

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- b. Murakami et al. (US 5,642,365) is for a method of including error detection and correction codes in a preamble.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667
10/17/05